



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Before the Board of Patent Appeals and Interferences

In re Application of

Confirmation no: 9950

Hirotomo KITAHARA et al

Art Unit: 3654

S. N. 10/081,881

Examiner: Kim, Sang K

Filed: February 2, 2002

For: LAMINATION APPARATUS

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is an appeal from the Examiner's final rejection mailed July 30, 2003.

REAL PARTY IN INTEREST

The real party in interest is LAMI CORPORATION, INC., the assignee of the application.

RELATED APPEALS AND INTERFERENCES

No related appeals or interferences are known to appellant, the appellant's legal representative, or assignee, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

STATUS OF CLAIMS

Claims 1-8 are pending in the application, are rejected, and are the claims under appeal. Appellant wishes to prosecute this

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Brief on Behalf of
Appellant
SN 10/081,881

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appeal with respect to claims 1-8. An appendix of claims is included herewith.

This application was originally filed on February 22, 2002, with claims 1 and 2. A first office action was mailed March 13, 2003, and a response to that action was filed June 13, 2003, amending claims 1 and 2 and adding new claims 3-8. A final office action was mailed July 30, 2003, and a response after final was filed December 1, 2003, together with a notice of appeal. No amendments were made in the response after final. The Examiner issued an advisory action December 12, 2003, maintaining the rejections, but noting that amendments after final would not be entered for purposes of appeal. No amendments were made after final, however. Applicant filed a notice of appeal by fax on December 1, 2003, to which this present appeal brief relates.

STATUS OF AMENDMENTS

No amendment was filed subsequent to final rejection.

SUMMARY OF THE INVENTION

The invention relates to a lamination apparatus for forming lamination layers of laminate film to surfaces of posters, advertising flyers, etc. The laminate film is provided as a long sheet on a roll 4 (FIG. 5) held on a shaft 41. The invention solves a problem of maintaining a good grip on the roll of laminate film, because the film is fed out under tension, and if

the roll slips on the shaft, the feeding of the film will be inaccurate and will cause slackness in the film which may cause wrinkling or otherwise poor quality laminations (page 3, lines 9-25). In the claimed invention, a deformable tube 74 (Fig. 1, Fig. 2, Fig. 3, Fig. 4, page 5, line 28-33) is provided in a groove in the shaft, whereupon when a roll of film is fitted to the shaft, the deformable flexible tube 74 will touch the inside of the core of the roll of film. Then, as may be observed in FIG. 3, if the roll of file rotates relative to the shaft, the deformable tube will move into the corner space at the edge of the groove in the shaft (Page 6, lines 3-10) causing the tight engagement between the roll and the shaft.

THE ISSUES

The broad issue presented in this appeal is whether the Examiner's final rejection of claims 1-8 is proper. The issue may be stated more narrowly as:

1. Whether claims 1-8 are unpatentable under 35 U.S.C. 103(a) over Kataoka (U.S. patent 4,496,114) in view of the admitted prior art of FIGs. 5-7 and pages 1-4 of applicant's specification.

GROUPING OF CLAIMS

Claims 1-3, 5, 6 and 8 stand or fall together but do not necessarily stand or fall with claims 4 and 7.

Claims 4 and 7 stand or fall together but do not necessarily stand or fall with claims 1-3, 5, 6, and 8.

Claims 4 and 7 stand or fall separately from claims 1-3, 5, 6, and 8 in that claims 4 and 7 add further details as to the material (soft vinyl) of which the deformable tube is constructed. This material is neither taught nor suggested by the prior art, and even if it is determined that the prior art teaches a deformable tube, since the cited art teaches rubber, and not a soft vinyl, it is submitted that this limitation of claims 4 and 7 adds further details which would result in the claims 4 and 7 being capable of standing or falling separately of the issues related to claims 1-3, 5, 6 and 8.

ARGUMENT

1. Claims 1-8 are patentable over Kataoka in view of admitted prior art shown in figures 5-7, and described on pages 1-4 of the specification. The Examiner rejected claims 1-8 under 35 U.S.C. §103(a) as allegedly being obvious over Katoka in view of admitted prior art shown in figures 5-7 (of applicant's specification), and described on pages 1-4 of the specification. In the advisory action, the Examiner adds further reference away from FIGs. 5-7, referring to FIG. 9 of Katoka as teaching a tube. Applicant agrees that Katoka shows a tubular roller in FIG. 9, but it does not teach nor suggest nor does the admitted prior art teach, whether considered alone or combined, that the tubular

roller should be a deformable tube nor that the material of the tube should be of a soft vinyl. Katoka relies on the fact that its roller is a sturdy non-deforming configuration, so that it will roll until it tightly wedges in the increasingly narrowing space available for it.

Katoka teaches away from using any type of deforming or flexible roller, because it states that the device's rollers:

are formed in a thickness such that the rollers, even when located at positions most separated from the peripheral plane of the winding shaft 1, slightly protrude from the peripheral surface and, when moved away those positions, protrude increasingly more from the peripheral surface. (Katoka at column 5, lines 62-68).

If the rollers of Katoka were intended to be flexible or deformable, they would not meet this requirement of design as taught by Katoka. Deformable rollers would not, when moved away from the stated positions, protrude increasingly more from the peripheral surface, because the deforming features would cause the rollers to collapse or deform and not protrude increasingly more.

Katoka goes on to state that the thickness of the rollers is very important. In column 6, lines 5-7, it is stated in Katoka, discussing the roller thicknesses, that:

When the thickness is too large, there arises a possibility of the rollers producing an eccentric error.

It is submitted that this further shows that the intention of Katoka is to have rollers of a fixed and rigid diameter (or thickness), and that there would be no purpose to have deformable or flexible rollers in Katoka, because the configuration of 3 rollers of a precise diameter offset radially by 120 degrees, is a requirement to maintain eccentricity and accurate configuration when engaging a spool, since the rollers of Katoka are not deformable. In view of this, it is respectfully submitted that there would be no motivation to include a rubber cord of the admitted prior art into the device of Katoka. Katoka relies on the rigidity of the rollers and their precise dimensions.

Still further, at column 6, lines 65-67, Katoka notes:

Since the pressure with which the spool c is locked to the winding shaft 1 by the uniformly spaced rollers, the spool is not suffered to sustain local deformation.

Applicant respectfully asserts that this further shows that the expectation of Katoka is that the rollers are very rigid and not deformable. Katoka relies on the regular radial spacing of the rollers to equally disperse pressure from the wedging of the rollers against the core of the roll, so that eccentric errors are not introduced. Were the rollers of Katoka deformable in their diameter, this concept would not be a concern and would not be discussed in Katoka

The Examiner notes that FIG. 9 of Katoka shows a tube. This is true, but as noted herein, the tube is not deformable, and the

Katoka device does not wish the tube to be deformable. It wants a tube of a fixed diameter that will not change.

Independent claim 1 and independent claim 2 recite, for example "a deformable tube". It is respectfully believed by applicant that such a construction is neither taught nor suggested by the combination proposed by the Examiner. Katoka wishes to have a rigid roller (whether solid or tubular). The admitted prior art is a rubber cord that is of weak rebound force (page 4, lines 6-8 of applicant's specification).

The admitted prior art of FIGs. 5-7 show a solid (non-tubular) cord of rubber. As noted in the prior art, the rubber has a weak rebound force. Of these claims, claims 1 and 2 are independent, and claims 3-8 depend therefrom. Thus, applicant's claims 4 and 7 add that the tube is of a soft vinyl. Thus, even if it were deemed appropriate to combine the admitted prior art rubber cord with the rigid tube of Katoka (applicant does not admit this point and expressly argues against it above, but for purposes of argument discusses the possibility here), what would result would be a rubber tube, not a deformable tube of soft vinyl as claimed.

In summary, combining the Katoka document with the FIGs. 5-7 and pages 1-4 prior art would not be warranted, because the operational modes of these devices is different. Katoka relies on 3 radially spaced fixed diameter rollers to tightly engage a

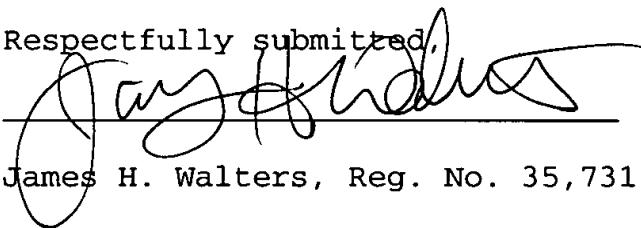
roll without eccentric errors by the rollers wedging tightly but remaining of a fixed diameter. The prior art of Figs. 5-7 and pages 1-4 relies on a pair of solid rubber cords on opposite sides of a shaft

In view of these points above, it is respectfully submitted that the rejection under 35 U.S.C. §103(a) should not be sustained.

CONCLUSION

In view of the foregoing, it is submitted that claims 1-8 of this application are patentable, and it is accordingly requested that the Examiner's final rejection be reversed and that allowance of this application be directed.

Respectfully submitted,



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